<table>
<tr><th>Question</th><th>Answer</th></tr>
<tr><td>11.</td><td>25</td></tr>
<tr><td>13.</td><td>$14\frac{1}{2}$</td></tr>
<tr><td>14.</td><td>31.5</td></tr>
<tr><td>15.</td><td>$m\angle VWX = 132^\circ$; $m\angle WYX = 66^\circ$</td></tr>
<tr><td>16.</td><td>$PR = QS = \sqrt{146}$, so $\overline{PR} \cong \overline{QS}$. Slope of $\overline{PR} = -\frac{5}{11}$, and slope of $\overline{QS} = \frac{11}{5}$, so $\overline{PR} \perp \overline{QS}$. The coordinates of the mdpt. of $\overline{PR}$ and $\overline{QS}$ are $\left(\frac{3}{2}, -\frac{5}{2}\right)$, so $\overline{PR}$ and $\overline{QS}$ bisect each other. So the diags. of $PQRS$ are $\cong$ $\perp$ bisectors of each other.</td></tr>
<tr><td>17.</td><td>Possible answer:
<table>
<tr><th>Statements</th><th>Reasons</th></tr>
<tr><td>1. $RHMB$ is a rhombus. $\overline{HB}$ is a diag. of $RHMB$.</td><td>1. Given</td></tr>
<tr><td>2. $\overline{MH} \cong \overline{RH}$</td><td>2. Def. of rhombus</td></tr>
<tr><td>3. $\overline{HB}$ bisects $\angle RHM$.</td><td>3. Rhombus $\rightarrow$ each diag. bisects opp. $\measuredangle$s</td></tr>
<tr><td>4. $\angle MHX \cong \angle RHX$</td><td>4. Def. of $\angle$ bisector</td></tr>
<tr><td>5. $\overline{HX} \cong \overline{HX}$</td><td>5. Reflex. Prop. of $\cong$</td></tr>
<tr><td>6. $\triangle MHX \cong \triangle RHX$</td><td>6. SAS</td></tr>
<tr><td>7. $\angle HMX \cong \angle HRX$</td><td>7. CPCTC</td></tr>
</table></td></tr>
<tr><td>34.</td><td>You cannot use the final statement because you do not know that $JKLM$ is a $\square$. That is what is being proven. However, if both pairs of opp. sides of a quad. are $\cong$, then the quad. is a $\square$. So $JKLM$ is a $\square$.</td></tr>
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Question	Answer
36a.	slope of $\overline{AB}$ = slope of $\overline{CD} = -1$; slope of $\overline{BC}$ = slope of $\overline{AD} = 1$
36b.	Rect.; adj. sides are $\perp$.
36c.	The diags. of a rect. are $\cong$
43a.	By def., a square is a quad. with 4 $\cong$ sides. So it is true that both pairs of opp. sides are $\cong$. Therefore, a square is a $\square$ because quad. with opp. sides $\cong \rightarrow \square$.
43b.	By def., a square is a quad. with 4 rt. $\measuredangle$ and 4 $\cong$ sides. So a square is a rect., because by def., a rect. is a quad. with 4 rt. $\measuredangle$.
43c.	By def., a square is a quad. with 4 rt. $\measuredangle$ and 4 $\cong$ sides. So a square is a rhombus, because by def., a rhombus is a quad. with 4 $\cong$ sides.
44.	(1) Both pairs of opp. sides are $\parallel$. Both pairs of opp. sides are $\cong$. Both pairs of opp. $\measuredangle$ are $\cong$. All pairs of cons. $\measuredangle$ are supp. Its diags. bisect each other. (2) Its diags. are $\cong$. (3) Its diags. are $\perp$. Each diag. bisects a pair of opp. $\measuredangle$.